

HANDBOOK OF PHONOLOGICAL DATA
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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	190 English	190 English	190 English
190	01 p-aspirated ^{01 02 30 46} [p] ^{03 60} [p-unreleased] ⁶¹ [p-nasal-release] ^{04 62} [p-preglottalized] ^{05 63} (free)	12 f ⁰¹	[c-fricative] ⁸⁴
190	03 b ^{01 02 03 06} [b-unreleased] ⁶¹ [b-nasal-release] ^{04 62} [b-half-voice] ⁹¹ (free) [p-lax] ⁹¹ (free)	13 v ⁰¹ [v-approximant] ^{11 71} (free) [v-half-voice] ⁹¹ (free) [f-lax] ⁹¹ (free)	27 glottal stop ^{67 90} (transitional, free) */t/aspirated/
190	04 t-aspirated ^{01 30 46} *[glottal stop] [t] ^{03 60} [t-unreleased] ⁶¹ [t-nasal-release] ^{04 62} [t-dental] ⁶⁴ (free) [t-lateral-release] ^{07 65} [t-preglottalized] ⁶⁶ (free) [t/s] ⁴⁶ (free) [t-retroflex] ⁶⁸	14 theta ^{01 12 13} 15 eth ^{01 12 13} [eth-approximant] ⁷² (free) [eth-half-voice] ⁹¹ (free) [theta-lax] ⁹¹ (free)	51 i-long [i] ⁸⁷ [iota/i] ⁴⁰ (free)
190	06 d ^{01 03 06 46} [d-unreleased] ⁶¹ [d-nasal-release] ^{04 62} [d-dental] ⁶⁴ (free) [d-lateral-release] ^{07 65} [d-retroflex] ⁶⁸ [d-half-voice] ⁹¹ (free) [t-lax] ⁹¹ (free) [d/z] ⁴⁶ (free)	16 s ^{01 14} 17 z ^{01 14} [z-half-voice] ⁹¹ (free) [s-lax] ⁹¹ (free)	52 iota 53 e-mid ^{38 41} [epsilon] ⁸⁶ (allo, free)
190	08 k-aspirated ^{01 30 46} [k] ^{03 08 60} [k-unreleased] ⁶¹ [k-nasal-release] ^{04 62} [k-preglottalized] ⁶⁹ (free)	18 s-hacek ^{01 15 16} 19 z-hacek ^{01 15 16} [s-hacek-lax] ⁹¹ (free)	54 ash ⁴¹ [ash-long] ⁸⁷
190	09 g ^{01 03 06 08 46} [g-unreleased] ⁶¹ [g-nasal-release] ^{04 62} [g-half-voice] ⁹¹ (free) [k-lax] ⁹¹ (free)	20 x (loan)	55 schwa-long *[schwa]
190	10 t/s-hacek ^{01 09 10} [t/s-hacek-preglottalized] ⁷⁰ (free)	21 m ^{17 18 19 20} [m-labiodental] ⁷³ [m-syllabic] ⁷⁴ (free)	56 schwa ^{37 87} (tag(+), allo) */schwa-long/ *[o-mid] [epsilon-dot] ⁸⁵
190	11 d/z-hacek ^{01 09} [d/z-hacek-half-voice] ⁹¹ (free) [t/s-hacek-lax] ⁹¹ (free)	22 n ^{17 18 19 21} [n-syllabic] ⁷⁴ [n-dental] ⁷⁵ [n-retroflex] ⁶⁸	57 ash-dot ⁴² *[a] [a-front] ⁸⁸
		23 eng ^{17 18 19 22} [eng-syllabic] ⁷⁴ (free)	58 u-long ³² [u] ⁸⁷ [upsilon/u] ⁴³ (free)
		24 j ^{23 24} [l-dental-velarized] ^{77 79} (free) [l-voiceless] ^{25 78} (free) [l-velarized] ⁷⁹ [l-velarized-syllabic] ^{79 80} [l-retroflex] ⁶⁸	59 upsilon 60 o-mid-long ³¹ [o-mid] ^{87 89} (allo, free) */schwa/
		25 r-approximant-retroflex ²⁷ [r-flap] ⁸² (free) [r-approximant-retroflex-voiceless] ⁷⁸ [r-fricative-retroflex] ⁸²	61 alpha ³⁹ 62 a-long ⁴⁴ [a] ^{87 88} */ash-dot/
		26 h ^{18 29 35} [h-voice] ⁸³	63 yod [yod-voiceless] ⁷⁸
			64 w *[w-voiceless]
			65 o-open ³⁶
			66 w-voiceless ^{45 78} (tag(-), allo) */w/

- 190 \$a English \$b British Received Pronunciation \$d Germanic \$e England \$f 300 million speakers of all English dialects \$g Merritt Ruhlen \$g Marilyn Vihman (review)
- 190 \$a O'Connor, J.D. \$b 1973 \$c Phonetics \$g Middlesex: Penguin \$q author is native speaker
- 190 \$a Gimson, A.C. \$b 1962 \$c An Introduction to the Pronunciation of English \$g London: Edward Arnold
- 190 \$a Halle, Morris \$b 1975 \$B original publication 1973, Linguistic Inquiry IV.451-464 \$c Stress rules in English: a new version \$e Essays on the Sound Pattern of English, eds. Goyvaerts and Pullum, p.261-276 \$g Ghent: E. Story-Scientia P.V.B.A.
- 190 \$a Fudge, Erik \$b 1975 \$c English word stress: an examination of some basic assumptions \$e Essays on the Sound Pattern of English, eds. Goyvaerts and Pullum, p.277-323 \$g Ghent: E. Story-Scientia P.V.B.A.
- 190 \$a Trnka, Bohumil \$b 1968 \$B first edition 1935 \$c A Phonological Analysis of Present-day Standard English \$f Alabama Linguistic and Philological Series No. 17 \$g Alabama: U. of Alabama Press
- 190 \$a ACCENT \$A Fudge's account is essentially a drastic revision of Halle's system, which alters many of the technical conventions, especially those connected with secondary stress, and incorporates some clearly needed statements on the accentual properties of affixes. Fudge replaces Halle's PSR and SSR by the simpler "general stress rule" (p.320) by which the antepenult (if there is one) is stressed when (a) the ultima is strong, (b) ultima and penult are both weak; otherwise stress is penult. The numerous exceptions seem to be about the same as for Halle's rules. Fudge divides suffixes into six classes, including "neutral" suffixes that do not affect stress, stressed affixes, and four classes that require stress to precede by a fixed number of syllables. Also the unstressable prefixes (cf. above on Halle's rules) are a notable category.
- 190 \$a ACCENT \$A The article by Halle represents one of the later stages in the effort by generative phonologists, particularly Halle himself, to give rules for English stress. In general the more traditional idea that stress is free is partly confirmed by this effort, since the rules usually allow a couple of accentual possibilities for a word of any given segmental structure. Due to the complexity of the rules and the variety of alternative suggestions, only a brief summary is given here, concentrating on location of primary accent in the word. Subsidiary degrees of stress, a major concern of Halle's, are ignored here. Halle distinguishes between weak syllables (with a short vowel followed by at most one C) and strong syllables (all others). The effect of the rules can be divided in two parts, depending on whether the vowel of the word-final syllable is long or short. (Diphthongs count as long V; for the purposes of the rule /i-long, u-long, o-long/ in open final syllables may count as short V.) (1) Short V in final syllable: stress is antepenultimate if the penult is weak; the penult is stressed if it is strong, and it is also stressed in disyllables. (p.265-the "primary stress rule" (PSR)) However, many verbs and some nouns stress a weak penult, and again verbs and some nouns stress the ultima if it ends in a consonant cluster. Further exceptions are words stressing a weak ultima. Also there are many words of both Germanic and non-Germanic origin taking stress on a weak ultima, or weak penult, when an unstressable prefix immediately precedes. (2) Long V in the final syllable: the "stressed syllable rule" (SSR) (p.266) applies, putting stress on the antepenult, or on the preceding syllable (if one exists) when the antepenult is weak. Many words, particularly verbs, also nouns with certain final syllables (e.g. "-oon"), stress the ultima instead.
- 190 \$a ACCENT \$A Gimson (p.216ff) finds that word accent is manifested primarily by pitch prominence, also by stress, length, and vowel quality. As to the last category, /schwa/ generally occurs only unstressed, and long vowels and diphthongs are perceived as having a certain degree of prominence, even without any of the other phonetic concomitants of accent. He sets up three degrees of accent: (1) primary (tonic), carrying a pitch prominence, (2) secondary, with qualitative or quantitative prominence, but having pitch prominence generally only before primary accent, and (3) unaccented. (p.222) \$A In Gimson's inventory of accentual patterns all words have one primary accent and at most one secondary accent. Most patterns of over three syllables have a secondary accent. If there are two or more pretonic syllables, one of them, two or more syllables before the primary, must have a secondary accent. Words with two or more unstressed syllables between primary and a preceding secondary are compounds or have primary accent on an affix (e.g. "materialistic"). When three or more unstressed syllables follow the primary, this is almost always due to unstressed affixes. Secondary accent on the pretonic syllable is found only with words having primary accent on the second syllable. Similarly secondary accent on the posttonic is only found word finally (except for certain compound forms). Gimson regards word accent as fixed in the sense that a given word has one accent pattern (or, in some cases, a choice of two patterns (p.227f)), and free in the sense that accentual patterns exist with primary accent on almost any syllable of a word. Compounds generally take primary accent on the first element and reduce the second accent to secondary, but the reverse also occurs. A notable morphological stress pattern is alternation of many disyllabic stems between final stress for a verbal form and initial stress for the corresponding noun.

- 190 \$a INTONATION \$A Within an utterance each accented word tends to constitute a rhythmic beat, with beats occurring at "fairly equal intervals." Each accented syllable may have a pitch contour, either falling or rising. Intonation patterns of sentences are related by Gimson to the pitch contour of a single dominant ("nuclear") syllable. Falling intonation is "matter-of-fact, separative, and assertive." Rising intonation is "continuative, often with overtones of politeness" etc. These patterns are found with both assertions and yes-no questions, as well as other sentence types. (Gimson, p.234ff)
- 190 \$a LONG CONSONANTS \$A Long C occur across word boundaries when identical C come together. (Gimson, p.151)
- 190 \$a MARGINAL SPEECH SOUNDS \$A /x/ occurs in some Gaelic, German, and Welsh loans, but is "of very restricted occurrence." (p.152) Extrasystemic sounds are the clicks [t/s-click] ("tut-tut") for disapproval and [t/l-fricative-click] ("gee-up") for urging on horses. (p.43-44) A trilled "r" is sometimes found "in highly stylized speech" for /r-approximant-retroflex/. (Gimson, p.203)
- 190 \$a PHONOLOGICAL WORD \$A initial C: all but /eng, z-hacek/ \$A initial CC: /s/ + [p, t, k], /m, n, l, w/; /p-aspirated, b, k-aspirated, g, f/ + /l, r-approximant-retroflex/; /t-aspirated, d, theta, eth, s-hacek/ + /r-approximant-retroflex/; /t-aspirated, d, theta, k/ + /w/; /p-aspirated, b, t-aspirated, d, k-aspirated, f, v, theta, s, m, n, l, h/ + /yod/ \$A initial CC: (in loans) /p-aspirated, t-aspirated/ + /s/; /s/ + /f/; /g/ + /z/; /b/ + /d/; /g, m/ + /w/; /z/ + /yod/; /t-aspirated/ + /m/; /p-aspirated, k-aspirated, g/ + /n/ \$A initial CCC: /s/ + [p, t, k] + /r-approximant-retroflex/; /s/ + [p] + /l/; /s/ + [k] + /w/; /s/ + [p, t, k, m] + /yod/ \$A initial CCC: (in loans) /s/ + [k] + /l/; [p] + /s/ + /yod/ (Trnka, p.43) \$A final C: all but /h/ \$A final CC: (list restricted to stem-internal clusters) /s/ + [p, t, k]; [p, k] + /s/; [p, k, f] + [t]; /d/ + /z/; /m/ + [p], /f, z/; /n/ + [t], /d, t/s-hacek, d/z-hacek, s, z, s-hacek/; /eng/ + [k]; /l/ + [p, t, k], /b, d, t/s-hacek, d/z-hacek, f, v, theta, s, m/; /yod/ + [t], /d, s, z, n, l/ \$A final CC: (uncommon) /m/ + /b/; /n/ + /theta, z-hacek/; /l/ + /n/; /yod/ + /f/, [k] \$A final CCC: /m/ + [p] + [t, s]; /eng/ + [k] + [t, s]; /l/ + [k] + [t, s]; [k, l, yod] + /s/ + [t]; /yod/ + /n/ + [t] \$A final CCC: (uncommon) /n, l/ + [t] + /s/ (Trnka, p.44) \$A final CCCC: Trnka does not find this within a stem, but it does occur by suffixation. See O'Connor, p.230.
- 190 \$a SYLLABLE \$A (C)(C)(C)V(V)(C)(C)(C) \$A diphthongs: /iota, e-mid, upsilon, o-open/ + /schwa/; /e-mid, ash-dot, o-open/ + /iota/; /schwa, alpha/ + /upsilon/
- 190 \$a VOWELS \$A The description of the vowels by Gimson goes into considerable phonetic detail, and includes many dialect variants. Only the most prominent variants within RP have been coded here.
- 190 01 \$A "Fortis/lenis...corresponds auditorily to strong versus weak sounds, with the addition that the lenis sounds are regularly shorter than the fortis ones. Acoustically the intensity of the burst of the fortis plosives...is greater than that of [the lenis plosives]...and the intensity of the noise of fricative sounds...is greater for the fortis sounds than for the lenis." (p.130) The tense/lax opposition is manifested by a complex of factors, chiefly aspiration vs. lack thereof before stressed vowels, voicelessness vs. voicing in intervocalic position with the second vowel unstressed, and short vs. long preceding vowel (or sonorant) in syllable final position. (Gimson, p.146ff)
- 190 02 \$A "Occasionally the place of articulation is labio-dental when either /p-aspirated/ or /b/ is immediately followed by /f/ or /v/." (p.135)
- 190 03 \$A "Sometimes...we find cases where the stop of the consonants is not completely formed, so that air is never completely stopped from flowing and a very short fricative sound is heard rather than a true plosive. This happens most often medially, between vowels." (p.130)
- 190 04 \$A "The soft palate is lowered sharply so that the compressed air bursts out through the nose" in the production of stop allophones with nasal release. (p.134)
- 190 05 \$A "The vowel of 'hope' is cut off by closure of the vocal chords; the [p] is then formed, the glottal stop released and the [p] exploded normally." (p.136)
- 190 06 \$A "/b, d, g/ may be and often are voiced but they do not generally have full voicing...unless they are surrounded by other voiced sounds." (p.130-1)
- 190 07 \$A "Instead of the tongue-tip lowering to release the compressed air, the sides of the tongue lower and the air bursts over them, the tip remaining in position for the alveolar lateral [l]" in the production of [t-lateral-release, d-lateral-release]. (p.137)
- 190 08 \$A [k, g] are "made with the back of the tongue in contact with the soft palate, but the actual centre of contact varies according to the surrounding sounds." (p.137)
- 190 09 \$A "The tongue-tip is against the back of the alveolar ridge, the front of the tongue rather high in a secondary palatal articulation" in the production of /t/s-hacek, d/z-hacek/. (p.138)

- 190 10 \$A /t/s-hacek/ "may have a little aspiration." (p.138)
- 190 11 \$A "In the case of the lenis /v/, there may quite often be no audible friction at all." (p.140)
- 190 12 \$A "The tongue-tip close to either the edge or the back of the upper incisors; the exact place of articulation is not very important, and perfectly recognizable [theta] and [eth] sounds can be made with the tongue-tip quite well back on the alveolar ridge.... The sides of the tongue are in close contact with the sides of the palate from back to front, ensuring that the air-stream is funnelled to the point of maximum narrowing." (p.141)
- 190 13 \$A In the production of /theta, eth/ "the ...friction...[is] much less strong than for /s/ and /z/." (p.141)
- 190 14 \$A /s, z/ are "formed by the blade of the tongue making almost complete contact with the alveolar ridge but leaving a narrow groove along its median line. This groove is considerably narrower than the narrowing made for the non-sibilant /f, v, theta, eth/ sounds. As with /theta/ and /eth/ the sides of the tongue are in close contact with the sides of the palate so that breath is channelled through the groove and does not escape laterally. The teeth are always close together for /s/ and /z/ and it is noticeable that separating the teeth to any extent immediately reduces the necessary sibilance.... Differences in realization of /s/ and /z/ are due to more or less grooving of the tongue-blade, leading to greater or less sibilance." (p.142)
- 190 15 \$A In the production of /s-hacek, z-hacek/ "the tongue-blade is close to the back of the alveolar ridge and there is grooving similar to that of /s/ and /z/ though not so narrow.... The front of the tongue is raised rather high in the secondary palatal articulation." (p.143)
- 190 16 \$A "Some speakers have a degree of lip-rounding for [s-hacek, z-hacek/] in all positions; for others lip position is dictated by neighboring sounds." (p.143)
- 190 17 \$A "Mostly the allophones are fully voiced; after voiceless plosives the nasal consonants may lose some voice, but never all or even most of it." (p.145-6)
- 190 18 \$A "[Nasal consonants and /h/] do not participate in the fortis/lenis correlation." (p.143, 145)
- 190 19 \$A "[With the nasals] occasionally, as with the plosives, the stop in the mouth may not be quite completed, in which case a nasalized frictionless continuant results." (p.146)
- 190 20 \$A "/m/ is less often syllabic [than /n/] but may be so" word finally after plosives. (p.146)
- 190 21 \$A /n/ is produced with "the tongue-tip on or near the alveolar ridge." (p.147)
- 190 22 \$A "/eng/ is rarely syllabic." (p.146)
- 190 23 \$A "Most allophones of /l/ are voiced throughout, but if /l/ follows one of the voiceless plosives...part or all of the lateral articulation may have no voice." (p.148)
- 190 24 \$A "The sides of the tongue are not in contact with the sides of the palate along all their length and air is therefore free to pass over the sides of the tongue" in the production of /l/. (p.148)
- 190 25 \$A When /l/ is voiceless "the breath passing between the sides of the tongue and the palate may and often does cause lateral friction; otherwise, /l/ allophones are non-fricative." (p.148)
- 190 26 \$A "When /l/ is syllabic it is of much the same length as the vowels, when non-syllabic it is shorter." (p.149)
- 190 27 \$A "The tongue-tip is fairly close to the back of the alveolar ridge, the sides of the tongue are in contact with the sides of the palate and there is lateral bunching of the tongue, which seems to be an important feature of /r-approximant-retroflex/, since the correct effect can be given without raising the tongue-tip, provided that the bunching is present." (p.150)
- 190 29 \$A "/h/ sounds...are simply strong voiceless versions of a following vowel and therefore do not generally have a close enough tongue position to produce that kind of local friction. There may be a little local friction between the vocal cords, but mostly what we hear is a more generalized friction of breath passing through a relatively open vocal tract." (p.143-4)
- 190 30 \$A The aspirated stops occur "before a stressed vowel in the same word" except after /s/. (p.132)
- 190 31 \$A /o-mid-long/ "often approaches" cardinal [ol]. (Gimson, p.109)
- 190 32 \$A Gimson indicates considerable centralization for /upsilon/. (p.112) Centralization of /u-long/ is also found with "certain types of RP." (p.114)
- 190 35 \$A "There are as many allophones of /h/ as there are vowel sounds which can follow it." (p.144)

- 190 36 \$A /o-open/ only occurs in the diphthongs /o-open.iota/ and /o-open.schwa/ (the latter being quite rare in RP as it is increasingly replaced by /o-mid-long/). (Gimson, p.110)
- 190 37 \$A /schwa/ occurs only unstressed. (Gimson, p.87) Gimson (p.119) gives the height as "between half-open and half-close."
- 190 38 \$A Gimson (p.123) indicates that in the RP diphthong /e-mid.iota/ the first element may range from higher-mid to lower-mid, and may be centralized.
- 190 39 \$A /alpha/ has "slight open lip-rounding." (Gimson, p.107)
- 190 40 \$A /i-long/ is "most often realized as a slight diphthong in RP, though it may also have a monophthongal realization." (p.154, Gimson, p.95)
- 190 41 \$A "There may be a diphthongal glide...to a more central [position]" in the production of /ash/. (p.157, Gimson, p.101) Also see Gimson (p.99) on similar variation of /e-mid/.
- 190 42 \$A "Older speakers tend to favour the back part [of the central area]...and younger speakers the front part" in producing /ash-dot/. (p.158)
- 190 43 \$A "In RP, /u-long/ most often has a diphthongal realization..., but it may be given a monophthongal pronunciation slightly lower and more central than cardinal [u]." (p.162, Gimson, p.114)
- 190 44 \$A Both O'Connor (p.159) and Gimson (p.87) put /a-long/ slightly back of the central position.
- 190 45 \$A /w-voiceless/, a "fortis voiceless labio-velar fricative," is found initially as a phoneme in contrast with /w/ "amongst careful RP speakers and regularly in several regional types of speech.... The use of /w-voiceless/ as a phoneme has declined rapidly." (Gimson, p.212)
- 190 46 \$A Gimson (p.153) mentions that all plosives may have affricated realizations, with a very brief fricative off-glide. He especially emphasizes this for the alveolars. (p.158)
- 190 60 \$A A stop has "little or no aspiration [when] it is followed by an unstressed vowel.... After /s/ none of [the stops] has aspiration." (p.132)
- 190 61 \$A The stops are unreleased before another plosive consonant and "in final position in an utterance." (p.133-4)
- 190 62 \$A "When any of the plosives is followed by any nasal consonant the explosion takes place nasally." (p.134)
- 190 63 \$A "The glottal stop...often figures in the realization of /p-aspirated/ (never of /b/) in RP and other accents.... [It] occurs frequently before a pause.... The same sequence of events is even more common in RP and many other accents before consonants." (p.136)
- 190 64 \$A /t-aspirated, d/ "may be dental when a dental fricative follows." (p.136)
- 190 65 \$A /t-aspirated, d/ have a lateral-release "when /l/ follows." (p.136)
- 190 66 \$A [t-preglottalized] as an allophone of /t-aspirated/ "occurs fairly commonly before pause and more commonly before consonants." (p.163)
- 190 67 \$A "Before consonants it is not uncommon in RP to find [glottal stop] alone for /t-aspirated/, particularly if the following consonant is a stop." (p.137)
- 190 68 \$A /t-aspirated, d, n, l/ are realized as retroflex "when /r-approximant-retroflex/ follows." (p.136)
- 190 69 \$A "Glottalization of /k-aspirated/ is frequent in RP...before pause and before consonants." (p.138)
- 190 70 \$A /t/s-hacek/ is "frequently glottalized...before pause and before consonants..., but unlike the plosives it is frequently glottalized before vowels." (p.138)
- 190 71 \$A /v/ is realized as [v-approximant] "quite often...particularly between vowels." (p.140) (Not mentioned by Gimson.)
- 190 72 \$A "Like /v/, /eth/ is quite often realized intervocalically as a frictionless sound rather than a fricative." (p.141) (Not mentioned by Gimson.)
- 190 73 \$A /m/ is labiodental before /f/ or /v/. (p.146)
- 190 74 \$A "/n/ is often syllabic...when no vowel intervenes between /t-aspirated/ or /d/ and [word final] /n/." Syllabification of /m, eng/ is much less common, but may also occur in comparable environments. (p.146)

- 190 75 \$A /n/ is dental "when...followed by the dental fricatives /theta/ or /eth/." (p.147)
- 190 77 \$A "Dental laterals may occur before /theta/ and /eth/," (in which position they are also velarized). (p.148)
- 190 78 \$A Liquids and glides may be voiceless when they follow "one of the voiceless plosives." (p.148f, Gimson, p.146)
- 190 79 \$A /l/ is velarized when not preceding a vowel. (p.148-9)
- 190 80 \$A /l/ is syllabic when word final after an obstruent. (p.149)
- 190 82 \$A /r-approximant-retroflex/ may be realized as [r-flap] "in RP and other accents...[when] preceded by a short, stressed vowel and followed by an unstressed one, but this is not very common." (p.150) It is a fricative when preceded by /d/. (Gimson, p.202)
- 190 83 \$A /h/ is voiced "between voiced sounds." (p.144)
- 190 84 \$A /h/ is realized as [c-fricative] "when the following sound needs a high tongue position." (p.144)
- 190 85 \$A /schwa/ is realized as [epsilon-dot] in final position. This also applies to /schwa/ as the final element of diphthongs. (Gimson, p.119, 136)
- 190 86 \$A /e-mid/ is realized as [epsilon] as first element of the diphthong /e-mid.schwa/. Before /r-approximant-retroflex/ this diphthong frequently reduces to [epsilon]. (p.171)
- 190 87 \$A The long vowels are shortened before syllable-final voiceless consonants. (Gimson, p.90) The short vowels are also said to be longer before voiced than voiceless consonants (p.100), but Gimson's transcription and examples reflect this only for /ash/, which is longer than the other short vowels. In the latter case the long phone is taken as variant of a basically short phoneme. Gimson also treats all diphthongs as essentially parallel to the long vowels as regards phonetic length, with the first element shortened in syllables closed by voiceless consonants. However the diphthongs are analyzed as clusters of two short vowel phonemes, not as long vowel plus short vowel. Since length variations in the short vowels (other than /ash/) are not coded here, those of the diphthongs are not either.
- 190 88 \$A In the diphthongs /ash-dot.iota/ and /ash-dot.upsilon/ the RP norm for the first elements are approximately [a-front] and [a] respectively. (Gimson, p.124, 131)
- 190 89 \$A Some RP speakers have [o-mid] as first element of the diphthong /schwa.upsilon/. (Gimson, p.129)
- 190 90 \$A [glottal stop] may be inserted between vowels at syllable boundary, and also word initially before a vowel in emphatic speech. (Gimson, p.163)
- 190 91 \$A The voiced obstruents may be partly or wholly devoiced initially in a stressed syllable and finally. (Gimson, p.148, 170, 174) The status of /z-hacek/ with respect to this rule is marginal, since it does not occur initially, and is often replaced by /d/z-hacek/ finally. (p.185) However a voiceless variant is listed on p.174.